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THE



LINEMAN

RURAL ELECTRIFICATION ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE

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St. Louis, Mo.

REA LINEMEN RISE TO CHALLENGE OF PROCLAMATION

933

"The troubled times in which we live must not make us callous or indifferent to human suffering. These unusual times require unusual safety efforts." This is quoted from President Roosevelt's Proclamation of August 18, 1941.

REA has risen to the challenge. Accident frequency rates involving system employees have decreased although frequency rate in the electric light and power industry increased nine percent.

REA system employees have recognized the
importance of safety.
Facts gathered by the
systems and assembled
by the REA Safety Unit,
while not always complete, provide for a
course of corrective action. The effectiveness
of the action is revealed in the record.

Yes, REA is equal to the challenge but the fine record is not one upon which we can rest.

(Turn to Challenge, p.6)

PITHY PARAGRAPHS FROM OHIO PLAN

"There is no operation necessary to our program which cannot be performed safely and efficiently."

"The degree of safety obtained is in direct proportion to the amount of practical effort put forth to avoid accidents by those who control the conditions and practices responsible for them."

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"Development of safe work methods requires both thorough understanding of the hazards involved and thorough training in the practical methods of avoiding or at least controlling these hazards."

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"All linemen should remember that the only wire that is dead is the one on the reel in the warehouse."

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"Rubber gloves! Don't leave them behind; put them on before you climb."

(From the State Plan for Ohio REA Linemen)

OHIO GETS OUT STATE PLAN FOR SAFETY OF LINEMEN

With an introductory paragraph reading "The avoidance of accidents is considered as an essential requirement of every operation on our lines, and at no time must the safety of our linemen or other persons be sacrificed for any reason," the State plan for Ohio REA linemen of the Ohio REA

Safety and Job Training Program has been issued in a mimeographed booklet by the State Board for Vocational Education, Division of Trades and Industries.

The foreword asserts that a study of accidents to REA linemen will be made for an instruction manual for (Turn to Ohio, page 6)

A-155

DISCUSSION CASE #6

The Case of the Misplaced Gloves

(Following is the sixth of a series of descriptions of accidents and how to prevent them. It is suggested that these accidents be discussed at your Safety Meetings and that you forward any comments or criticisms you may have to the editor.)

A pole had been struck by lightning. The superintendent discussed the trouble with his lineman. It
was decided the lineman would investigate and call for
assistance if necessary. The lineman drove to a junction pole to de-energize the section. It was necessary to cut the jumper as no hot line clamp had been
installed. The lineman climbed the pole, cut the jumper with hot-line cutters, went around the pole to a
different side, took hold of a guy wire while holding
the end of the jumper. The jumper had been cut so
that it remained energized. The victim's body was
discovered by a passerby.

The lineman had had 22 years experience. It was the system rule to put on rubber gloves two feet below the neutral. The rubber gloves were found in the truck.

The accident has a familiar ring. Similar ones have happened before. (Review Discussion Case #1 in the December, 1941, issue of "The REA Lineman"). They will probably continue to happen UNLESS STEPS ARE TAKEN TO PREVENT THEM! But what steps?

Let us discuss what happened. The victim must have known which way the current was feeding. He went to the correct pole to de-energize the section to be worked. Why then was the jumper cut backward? The victim had 22 years experience. Wasn't he thinking of what he was doing? Possibly. Is there any other explanation? Why did he swing around the pole and grab the ground wire? Was he going to use the guy as a ground? Do you think he could have climbed the pole, discovered the jumper might be too short to connect to the ground, looked around for another ground, discovered the guy and decided to ground the line to the guy? Could he have been thinking MORE about the length of the jumper and how it would reach the guy than which way the current was feeding?

Why the jumper was cut so that it remained energized we'll never know. But should we tell men with 22 years experience not to cut a jumper so that the tail remains energized? Would YOU ever cut a jumper that way?

SHORT STORIES WITH MORALS

These accidents suffered by system employees were reported to REA in April, May and June.

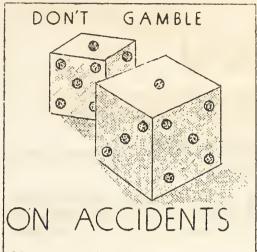
- l. A bricklayer was setting beams for the roof of a cooperative office building. He stepped on a beam he had failed to nail securely. The beam gave way and the man fell 14 feet onto two sawhorses, bruising his back and side.
- 2. A pole being lifted onto a truck dropped, pinning the lineman underneath. He suffered a severely strained back.
- 3. An assistant lineman connecting a ground wire to a guy was sufficiently shocked to cause him to fall. Infection developed from splinters in his arms and legs. Investigation failed to reveal the cause of the shock.
- 4. When his safety strap broke as he started to hang a hot stick on his belt preparatory to descending, the lineman fell, breaking his leg. Although weekly inspections were conducted, the strap was of unknown age. It belonged to another man.
- 5. During moving of system headquarters, a bookkeeper was driving

(Turn to Morals, page 3)

MORALS (from page 2) a truck over an unfamiliar road. At a bridge under repair, abrupt drops of 6 inches were left at each end but there were no warning signs. The jar of the truck caused the bookkeeper to strike his knee against the shift lever. He lost sciousness, the truck left the road and sideswiped two trees. victim, suffering shock, concussion and cuts, was hospitalized 3 weeks and lost 75 days. The truck was a complete loss.

6. A lineman was temporarily employed during a period of fierce lightning storms. was instructed to deenergize the line before attempting work of any kind. Upon locating a pole split by lightning, he undertook to retop it while the line remained hot. Fortunately, he suffered only minor His alibi for burns. disregarding instructions was that he thought 3 miles too far to drive to de-energize. He suffered burns on the UPPER ARM and instep, the only case this year where burns were NOT ON THE HANDS.

7. A lineman climbed up to a transformer and in reaching around the pole with his safety strap touched the connector on top of the transformer. Attempts at resuscitation were unsuccessful. About a year ago the system discontinued the use of rubber gloves -- BURNS



WERE ON THE HANDS!

8. A lineman was letting a conductor loose from a cross-arm. The cross-arm kicked back striking him in the chest with insulator. An infected pluris resulted.

9. A truck with winch line was used to drag 3 logs in right-of-way clearing. The top

log rolled down on a helper's foot when he unhooked the line. A bone in the foot was chipped.

10. Falling hot tar developed infection in a wound on a helper's foot.

11. A lineman suffered second-degree BURNS ON THE HANDS while working on a transmission line.

12. A second-class lineman was standing in a tree when a limb from an adjoining tree fell to the line. It swung the wire toward him BURNING HIS FINGERS and momentarily knocking him out.

Bonds or bondage? Buy U. S. Savings Bonds.

DISCUSSION (from page 2)

Then how can we prevent this type of accident? Protective equipment? He had his gloves! But he didn't have them on! This accident proves THAT GLOVES ARE NECESSARY. They ARE NECESSARY in spite of the fact that you never INTEND to contact the energized primary. Our records PROVE this.

Can we make a recommendation that will AUTOMATI-CALLY protect linemen from this type of accident?

We believe this can be accomplished by the practice of WEARING RUBBER GLOVES FROM THE GROUND UP. A man's mind may wander momentarily, but we doubt that his mind would wander from the time he left the truck, climbed the pole, cut the jumper and picked it up in his hands. Few people really are absent-minded! If you have your rubber gloves ON YOUR HANDS WHEN YOU CLIMB THE POLE, and keep them on until you return to the ground, you are protected.

Don't think accidents like this can NEVER happen to you. These discussion cases are YOUR accidents. They happen on YOUR systems. They happen to YOUR linemen. They happen to YOU! We repeat these fatal words, "THE BURNS WERE ON THE HANDS".

THE REA LINEMAN Vol. II, No. 5 June-July, 1942

Published every other Month in the Interest of Safety for Employees of REA Systems

David A. Flewing, Editor

CREED FOR AMERICA - BY F.D.R.

PRESIDENT ROOSEVEIT sent a message to David Sarnoff, president of the Economics Club of New York, on the celebration of its 134th anniversary. In his message he said:

"The freedoms that we must and will protect in the United States are the freedoms which will make the individual paramount in a true democracy. In our American way of life political and economic freedom go hand in hand. Our freedoms must include freedom from want, freedom from insecurity, and freedom from fear. I firmly believe that we can best secure these freedoms by Government and private enterprise working together for these common objectives. In this joint effort there must be provided proper reward for labor, proper incentive for enterprise, and a proper return on investment.

"Today the challenge which we as a democracy must meet is the challenge to make the best possible use of our vast resources, and to achieve speedily the common purpose of national defense and national progress. It is a challenge to Government, to labor, to industry, and to capital alike. I have unbounded faith that we shall succeed in this task."

TOO LITTLE AND TOO LATE

A late dispatch states our enemy--electric shock accidents--has started a five-pronged pincers drive to cut down our supply of skilled workers. June casualties were 44 percent of the total for the first half of the year and included one fatality.

The enemy has called in Field Marshall Summer to guide his campaign. We know from bitter experience that Field Marshall Summer is an underhanded, deceitful, stab-in-the-back sniper who takes as his victims the unwary, whether experienced or not.

We look for help from a counter offensive started in the April-May issue of "The Lineman." To date the help has been TOO LITTLE. In the first six months of 1942 in 88 percent of the electric shock accidents, the BURNS WERE ON THE HANDS. It can and DOES happen.

General Rubber Gloves and Colonel Protective

(Turn to Little, page 6)

CAMPAIGN TO RAISE FUND FOR SAFETY

To reduce the interruptions to war production caused by accidents,
a group of business men
with the approval of
President Roosevelt and
WPB Chairman Donald M.
Nelson, is seeking to
raise a fund of
\$5,000,000 to promote a
broad program of safety
for the next two years.

The national economic loss due to accidents last year is estimated at \$5,750,000,000. Iast year 101,500 persons lost their lives in accidents. This is 5 percent more than died the year before. The number permanently disabled in accidents was 350,000 and lesser casualties numbered 9 million.

As a result of this number of mishaps, 460 million man-days of production were lost, equivalent in time necessary to build 66 battleships or about twice the number in the combined navies of Britian and the United States. Industrial accidents during the first quarter of this year already show an 11 percent increase.

Reduction of interruptions in production now is recognized both as a war necessity and a patriotic responsibility.

REMEMBER: THE BURNS WERE ON THE HANDS:

FOR VICTORY BUY BONDS:

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Upon the height remains just one And only half the year is done. The Others' slips and falls and spills Contribute all our aches and ills

Our toughest time is yet to beat— Electric shocks in summer heat. Be careful with extremities; Put on your rubber gloves, OH PLEASE! Remember that, so hot the wire, A ground (in sight) will drain the fire. Your Uncle Sam now needs your skill For lose a fight we never will.

LAST

THIS YEAR

REGION

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Disabling Accidents per 10,000 Energized Miles

OHIO (from page 1)

safe working methods, the aim of which is to bring about uniform and safe working procedures in all the Ohio REA sys-Foremen will be expected to satisfy themselves that the men working for them are properly instructed on the hazards they will encounter and on the methods that mean safety.

The booklet contains 4 linemen's messages. One message describes "How Accidents Have Occurred", listing five ways, the first of which is "Leaving rubber gloves on the ground." Four points to watch so as to avoid such accidents are given. Other give nine messages points on the care of fiber rope, with a table showing the weight and strength of standard manila 3-strand rope, and information on the safe use of ladders. latter message has a table telling the correct angles for ladders according to their length.

Several pages devoted to the REA Operations Memorandum #22.2, instructions on safe practices to be followed by contractors during construction, energizing procedure to be followed by system linemen, and the REA Safety Unit bulletin of May 12, 1942, on electric shock hand accidents to system employees.

The book was gotten



LITTLE (from page 4)

Grounds are doing their best to beat the enemy back by counter attacking on the ground, the pole and in the trees, but their forces are TOO LITTLE. reinforcements! They need everyone to help defeat the subversive propaganda can't happen here" "They are unnecessary." We need EVERYONE to back our Commander - in-Chief Accident Prevention in to his appeal RUBBER GLOVES and PUT ON PROTECTIVE GROUNDS. Don't let YOUR INDIVID-UAL effort be TOO LITTLE AND TOO LATE. REMEMBER: THE BURNS WERE ON THE HANDS!

out with the cooperation of the University of Toledo, Department of Vocational Education, and the Ohio REA Safety and Job Training Advisory Committee of seven members.

CHALLENGE (from page 1)
Safety requires unremitting effort. Increased effort is necessary because electric shock accidents increase in the warmer months.

Therefore, we must be more energetic than ever to maintain our record. A united effort concentrated on prevention of electric shock accidents will bring the best results. Remember to consider lines and equipment as energized unless PROTECTIVE GROUNDS SEEN CAN BE FROM THE WORKING POSITION. member to PUT ON RUBBER GLOVES BEFORE CLIMBING ANY POLE CARRYING AN EN-ERGIZED CONDUCTOR, regardless of the work to be performed, and do not remove them until back on the ground. REMEMBER, THE BURNS WERE ON THE HANDS!

LINEMEN ALSO GET OTHER WORK TO DO

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Linemen have other work besides climbing poles. For instance, as reported in the newsletter of the Vermont Electric Cooperative, of Eden Mills, Vermont, last winter its linemen had 31 water-thawing jobs, 27 of which were in February. The publication adds that, with the exception of two or three cases where the water pipes were rusted or broken, the thawing job was "highly successful".

SAFETY AND JOB TRAINING PROGRAM SAVES LIVES AND SAVES MONEY

The safety and job training program saves not only lives but money. It can be shown in figures. The figures are contained in a letter from B. F. Snively, Illinois REA Safety Instructor, quoting Mr. Vernon Green, of the Illini Electric Cooperative at Champaign. The saving is made in the reduction of the insurance premium. Here are the figures as quoted from Mr. Green:

> \$154 Cost of safety program for 1942 Reduction on premium for 1942 \$260 Total savings to cooperative \$106

Other system officials tell the same story of savings. Mr. L. C. Groat, of Spoon River Cooperative, gets the cash saving of a 25 percent reduction in his insurance rate. He lays it all to the fact that his system is participating in the safety and job training program.

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HEAT EXHAUSTION OR HEAT PROSTRATION

How to tell Heat haustion:

- 1. Dizziness -person usually acts dazed - may stagger.
- 2. Feeling of sickness-vomiting.
 - 3. Chilliness.
 - 4. Face pale
- 5. Sweating profuse, especially on forehead and face. Entire body may be clammy.
- 6. Pulse weak and rapid. Body temperature below normal.
- 7. Fainting-loss of consciousness for short period.

What to do:

- 1. Send for doctor
- promptly.
 2. Remove victim to fresh circulating air.
- down with head low. 4. Make clothing com-
- fortably loose. 5. Keep him blankets both under and over him.
- 6. Rub arms and legs gently toward heart

through the blanket, to assist blood circulation.

7. If able to drink. give him frequent drinks of salt solution, salt tablets, to replenish the lost body salt. (A level teaspoonful of salt in a pint of coolnot ice cold-water.) Hot coffee or tea also may be used as a stimulantbut NO ALCOHOL.

(Safety Instruction Card

No.57)

HE DIED WITH HIS BOOTS ON --(And his Gloves Off!)

By Mrs. Kenneth Mostoller

Here lies the body of Lineman Billy,

He thought that some safety precautions were silly. Of the rubber glove rule he'd say, "I'll be bound,

If I'm gonna wear 'em 'fore leaving the ground. I'll just climb on up; if I see work that's tough, I'll put 'em on then--that'll be soon enough."

Well, that's what he thought, but it's not what he did; For the danger that threatened was pretty well hid. A defective ground had made the transformer

Not only lukewarm, but considerably warmer! The gloves which could save him, were just too much bother --

And now Billy Junior is minus his father!

FIRST-AID COURSES NOW SHOW RESULTS

larger proportion of accident claims in the no-time-loss category are reported the Ohio Industrial Commission. This, the commission believes, flects the unusual wave of first-aid training which has come with the war effort. The training has led to the reporting of apparently insignificant injuries, if neglected, which, might have developed in-"This," the fections. Commission comments, "has been a sound and logical asset in the accident prevention offort throughout State, and undoubtedly has confined many a case to the medical-only classification which might otherwise have developed into a major injury."

There are no "rookie" dollars. Send yours to the front! Buy U. S. War Savings Bonds and Stamps!

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SAFETY AND JOB TRAINING

Missouri now has joined the States having the Safety and Job Training Program. The Committee has been formed and it is busy organizing and planning. Indiana and Oklahoma continue with their work.

A delegation from Mississippi paid us a visit and plans regarding a program there were discussed. (It is rumored that one insurance company which had declined risks in Mississippi now wants the business since the Safety and Job Training started).

Iowa has selected its Supervisor. He is Mr. J. Morrow, a former System Superintendent. Our family of supervisors has grown to nine.

Michigan has been quiet about its accomplishments, probably because they have been so busy. There is 100 percent participation of all systems in Michigan.

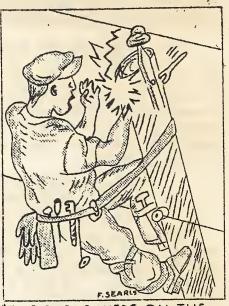
Texas committee members are still working on their standards. To Texas Systems: the reason the standards are not out yet is probably our fault. No excuses-just apologies. They will be worth waiting for though! Texas has a news letter about its activities. That idea might well be copied.

Wisconsin is another State from which we expect big things. Ken Mostoller, the Superhas his wife visor, writing poetry and good Her poem is on poetry. page 7. Mr. Rex Dewey, Manager of the Grant Electric Cooperative at Lancaster, Wis., in five photographs and suggests they may be used in the Job Training Program. Wish we could reproduce them here. If you decide to take pictures, do as Mr. Dewey did--avoid "posed pictures." A camera will help point out safe as well as unsafe practices. We all do little things unconsciously. Sometimes these lead to accidents. It should be emphasized that pictures of "unsafe work methods" are not meant as a rebuke merely evidence but that certain of our habits are unsafe. Guard against them.

Kentucky and Alabama have been quiet of late. News wanted.

Slim Ehmsen Ohio sent in two "Field Safety Problems". That's fine, Slim. More supervisors should do The Commitlikewise. tee has printed a pamphlet to start its sec-One of their ond year. "Rubber messages is gloves. Don't leave Put them them behind. on before you climb."

Through the courtesy of Mrs. Dean Searls, wife of the Superintendent of the Adams Electric Cooperative at Camp



"THE BURNS WERE ON THE HANDS"

Point, Ill., we received the sketch reproduced on this page. Why don't you linemen discuss the cases where the BURNS WERE ON THE HANDS with your wife and see what she thinks about wearing rubber gloves? And why not a women's safety auxiliary to help protect their men-folks?

TO THE SECRETARIES:
Don't forget to send us
the minutes of your
meeting!

TO THE SUPERVISORS: Send us your itineraries! We might drop in on you!

NEW SPIDER PARLOR

Come into my parlor, said the spider ... Not content with luring flies to their web, spiders along the lines of the Sac-Osage Electric Cooperative in Missouri have taken new parlors inside the meters of members, stopping the meters and giving the linemen headaches.